

50X1-HUM

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Next 2 Page(s) In Document Denied

A New Combat Vehicle

by

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Recently, in our military press and in the military press abroad there has been wide discussion of the role of the armed forces and the arms of troops in a future war and of the directions of future development and improvement of combat equipment and armaments. A significant place in this discussion is devoted to determining the role of tanks in a modern battle and operation. This is not accidental because the firepower, armor protection, and mobility which are combined in tanks have always given them certain advantages over the other arms of troops and permitted the successful conduct of combat operations.

At the present time tank formations and large units also have the greatest mobility and resistance to destruction by nuclear weapons; therefore, in modern operations too they are able to fulfil the quite complex and responsible missions that are assigned to them.

But this does not mean that the modern tank must be considered the ultimate in the perfection of combat equipment and that it is fully suited to conducting combat operations under the new, complex conditions. We share the opinion of Marshal of Armored Troops P. A. Rotmistrov* about the need to increase the relative proportion of the tank troops at the front level and in the armed forces as a whole, and we consider it advisable and feasible to create and introduce into the ground troops, instead of the tank, an armored vehicle of a new type that, in its characteristics and utility, would

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50X1-HUM

fulfil the modern requirements to the maximum.

With the appearance of antitank guided missiles with shaped charges (PTURS) that have high armor-piercing capability, tanks lose one of their basic qualities — effective protection from the fire of these new weapons.

One cannot disagree with the opinion of Colonel-General A. Kh. Babadzhanyan*, who maintains that in single combat with an antitank missile launcher a tank will be defeated, and with the adequate saturation of the troops with these launchers, any tank attack may be broken up and a large part of the tanks participating in it destroyed, together with their crews.

It is true that antitank missiles have not yet been tried in combat and still have several shortcomings, but this is one of the types of weapons having the best long-range prospects and one which will be constantly improved. Therefore, there is little justification for the attempt by Marshal of Armored Troops P. A. Rotmistrov to prove that the new antitank missile weapons, with the availability of weapons of mass destruction, are not very dangerous for tanks and that their use allegedly will not greatly influence the employment and operations of tank troops.

In the near future, antitank missiles will comprise the greatest danger for tanks with any armor protection, and the use of the PTURS on armored vehicles and the improvement of the means of guiding the missile to the target will make them even more menacing weapons.

Should we pose the problem of further increasing the thickness of tank armor under these conditions? Of course not. One should speak of a sharp increase in the firepower of the tank by replacing the gun with a missile launcher.

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A correct solution of this problem is offered by General of the Army A. S. Zhadov*, when he speaks of the need to arm the modern tank with the most advanced missile weapons, that ensure the destruction of any enemy tanks or other objectives at great distances during combat.

As far as the mobility of the tank is concerned, it is relative, and does not fully meet the requirements of a modern operation and battle, which are conducted at high tempos. Just as before, water barriers are a serious obstacle for heavy and medium tanks.

Therefore, destructibility by the fire of new antitank weapons, the comparatively weak firepower, and the inadequate cross-country ability and mobility of the tank demand its replacement by a combat vehicle of a more improved type, which is capable of performing comprehensive combat missions.

In a modern battle and operation, success is achieved by the joint efforts of the missile, tank, motorized rifle, artillery, and other large units and units in close coordination. But the fact that at the present time each arm of troops has different combat capabilities, unequal protective capability against the destructive factors of nuclear weapons, and therefore is not suited for the fulfilment of all the comprehensive operational and combat missions independently, can lead not only to the disruption of coordination but in several instances to the loss of the combat effectiveness of formations and large units.

That is why it is necessary to have a combat vehicle that, at the very least, would combine in itself the combat features that are inherent in tanks, missiles (artillery), and motorized rifle subunits. Such a vehicle must ensure the successful fulfilment of various combat tasks successively accomplished in the offensive and on defense, have maximum protection from weapons of mass destruction, and at the same

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50X1-HUM

time serve as a means of transportation for personnel and armament. Firepower, armor protection, and mobility have to find a new balance in it, in the presence of a new quality — versatile, universal utility.

The new combat vehicle must have the following:

- improved means of reconnaissance and communications permitting the detection of enemy targets and objectives at great distances and the maintenance of reliable communications between vehicles, subunits, and units;
- powerful armament capable of destroying enemy personnel in armored vehicles and outside them and also various combat equipment at considerable distances;
- an adequate amount of ammunition, calculated for 1 to 2 calendar days of combat operations.

The speed of such a vehicle must reach up to 80 kph on roads and up to 50 kph off roads, and must have a supply of fuel for 700 to 1000 km and high cross-country ability, including rapid crossing of zones of radioactive contamination, water barriers, and various obstacles and obstructions.

Armor protection and hermetic sealing of the vehicle must ensure reliable protection of personnel from small-arms and fragmentation injuries and from the effects of radioactive and toxic substances, bacteriological agents, thermal radiation, and, if possible, the shock wave.

It is proposed to have the vehicle hold 7 or 8 persons, preferably with means for digging themselves in: a crew of 2 or 3 persons and a combat team of 4 or 5 persons having the capability of conducting fire directly from the vehicle in motion, and when necessary of performing combat missions after dismounting. At the same time, the team is assigned the duties of operating instruments, servicing the vehicle, concealing it, etc.

50X1-HUM

Consequently, unlike the tank, on which riflemen can operate only as riders, in the proposed vehicle the team is an integral part of the vehicle, as well as of the combat element. It is planned to have the new combat vehicle simultaneously replace the tank, armored personnel carrier, and partially the gun with a prime mover.

Lieutenant-General N. F. Slyunin* also speaks of the need to create a new combat vehicle to replace the existing tank. However, he examines it from slightly different positions, taking the concept of atomic resistance as the basis for its creation and defending the retention of the combat vehicles for the infantry and artillery (for example, an artillery regiment remains in the division, etc.). Naturally, a vehicle of this type will not be a universal vehicle, but an improved armored personnel carrier which cannot eliminate the existence of tanks.

In the combat vehicle it is not absolutely necessary to have large stocks of foodstuffs and water, much less bunks to provide rest for the personnel, as proposed by Lieutenant-General N. F. Slyunin.

It appears to us that, besides the proposed combat vehicle, it is necessary to have vehicles capable of performing more complex fire missions. For this purpose, the means for using nuclear weapons, and also antiaircraft weapons, are mounted on such vehicles. The creation of groups of such vehicles in companies and regiments will strengthen the fire support of line subunits, give them great independence, and will ensure the successful fulfilment of combat missions.

For the firm and continuous control of troops, it is also necessary to have command combat vehicles with modern armament and equipped with the necessary means of communications.

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50X1-HUM

The basis of the combat formations of subunits and units under these conditions will be made up of line, command combat vehicles and a certain number of special combat vehicles comprising groups of fire support.

At the modern stage of development of Soviet tank building, the amphibious tank or the amphibious armored personnel carrier serve as the basis for creating a universal combat vehicle.

The introduction of a new type of combat vehicle into the armament of the troops will fundamentally influence the organization of the troops. First of all, the need ceases for arms of troops such as tank, motorized rifle, and artillery. To replace them, it is necessary to create unified armored troops with subunits, units, and large units of a unitary type.

The crew and team of each combat vehicle may be a squad, and 5 to 7 squads (vehicles) comprise a platoon. In the line vehicles of the platoon, it is advisable to have means for combating personnel, including those located in shelters, and enemy armored vehicles, for which it is possible to use missile weapons, large-caliber machine guns, and grenade launchers. It is desirable to have PTURS mounted on all vehicles.

In the company, it is advisable to have three platoons and a fire group (2 or 3 vehicles, including the commander's vehicle) with means for using nuclear weapons.

At the present time a tendency exists to have one or two intermediate levels between the company and the division. It appears to us that a division should consist of regiments in which it is advisable to have companies, but excluding the battalion level. The elimination of the battalion level with the presence of new combat vehicles of one type will not have a negative influence on the fulfilment of tasks by the regiment, even though the battalion, with the loss of combat effectiveness by two companies, will obviously lose its independence. Troop control and their dispersal during

50X1-HUM

combat operations will also become simplified. Besides that, the battalion level is not directly tied in with materiel and technical support measures.

With the introduction of the new combat vehicle, the regiment can consist of up to five companies, a fire group, means of combat support, and corresponding rear services.

The regimental commanding officer's fire group must include missile launchers, antiaircraft guns for combat with low-flying enemy airplanes, means for combating radio-technical equipment, and special vehicles for conducting reconnaissance. Special subunits to eliminate the after-effects of an enemy nuclear attack should be introduced into the regiment.

The unitary division may include 4 or 5 regiments having the same composition. This number of regiments will permit the execution of a broad maneuver on the battlefield, form the most diverse combat order, and disperse the troops even more, especially in depth. Naturally the division, apart from the regiments, will have the means of combat, materiel, and technical support. A division with the proposed complement will have a total of 500 to 600 combat vehicles, and it will have a strength of 6000 to 7000 men. Such a division will surpass a modern tank, and, especially, a motorized rifle division, in fire and striking power, and also in mobility and maneuverability.

In our opinion, the army must mainly have divisions with identical organization. When necessary, separate divisions may vary from the standard organization — for example, divisions intended for operations in a mountainous area, as an airborne force, etc.

We consider that for the timely reinforcement of divisions, wider use of airborne forces, and for performing other tasks, it is necessary to have one or two reserve regiments — 12 to 18 companies — in an army.

These are our proposals for troop organization. At the present stage of development of the organizational structure of troops, the creation of new large units may be carried out on the basis of tank and motorized rifle divisions. For example, from two tank and two motorized rifle regiments it is possible to create a division composed of four regiments, with four companies in each regiment. Initially, the company can have 10 to 15 tanks, 4 or 5 armored personnel carriers, and fire support weapons. At first the basis of the combat power of such subunits will consist of tanks. 50X1-HUM

Closer coordination of tank and motorized rifle subunits is ensured with such organization. These will be detachments of a special type, having high maneuverability, great striking force, and the capability of performing combat tasks that are more varied in nature. Moreover, the faults of modern tank and motorized rifle regiments are eliminated, and measures connected with the dispersal of troops and increasing their viability will be conducted with greater success.

At the same time, the army may include separate divisions with a complement of modern motorized rifle regiments, but without tanks, with an adequate quantity of antitank weapons and more powerful weapons to neutralize the enemy with fire. Such "light" divisions may be designated for the consolidation of lines, for conducting combat operations in populated points and on terrain that is difficult for tanks to transit, and also may operate as airborne forces.

The proposed organizational measures permit the use among the troops, during combat training, of new methods of combat operations which meet modern requirements.

Only general questions of the creation of a new combat vehicle and the improvement of troop organization are set forth in this article. It seems to us that the time has come for a broader discussion in print of problems pertaining to this field of military theory and practice. 50X1-HUM